CITRUS LONGHORNED BEETLE ERADICATION PROJECT

A fact sheet from the Washington State Department of Agriculture

SEPTEMBER 2002

Beetle Bites

- The CLHB beetle, a native of Korea, was first discovered in August 2001 in Tukwila, WA.
- Adult CLHB beetles seek out and destroy healthy trees.
- Scientists believe five beetles escaped into the Tukwila landscape near Macadam Road S. and 144th Street S from trees imported by a local nursery.
- A female beetle can lay up to 200 eggs in one summer.
- Baby beetles, worm-like grubs, bore into the trees and live inside for 9 months.
- CLHB grubs sever tissues that carry nutrients, water, and kill the host tree.
- The adults that emerge from tree make symmetrical holes about ½ inch in diameter.

Washington's tree slayer: The citrus longhorned beetle

Trees in Puget Sound are at risk from a tree-killing insect that was first discovered in the Evergreen State in August 2001. The citrus longhorned beetle, called CLHB for short, is one of the worst non-native pests to ever enter the United States. Its unwitting arrival on a shipment of bonsai maple trees is the first and only time the beetle has been caught out-of-doors in the U.S. The wood-boring beetle is considered a serious pest in Asia. Here, in Washington, it poses an unprecedented threat to the environment because it attacks healthy trees —more than 40 varieties of hardwood and fruit trees — and has no natural enemies. Not only are greenbelts, urban landscapes and backyard trees at jeopardy, but also orchards, forests and salmon and wildlife habitat. If this pest were to become permanently established in Washington, thousands upon thousands of trees would be destroyed.

The threat: A big, black beetle with white splotches

The citrus longhorned beetle is shiny and black with irregular white splotches on its back
It has six legs, measures 1½- to 2-inches long and has long antennae that are distinctly banded with black and white. The antennae are longer than the body itself. This is a pest that can fly, thus it can spread relatively quickly. Since its introduction, many people have reported possible sightings. But so far, all the specimens have turned out to be other, native beetles. If you spot or capture a beetle with stripes instead of splotches, it is not the CLHB beetle.

The adult beetles emerge from the interior of trees from mid-to-late summer and live outside the tree for as long as three months. During this period, the beetles eat small amounts of leaves and twigs, mate and the female lays up to 200 eggs under the bark of trees. The adult beetles then die. Shortly after eggs have been laid, cream-colored grubs hatch and chew their way into the interior of trees. There, they feed relentlessly. For nine months, the grubs bore several interior tunnels in the tree, severing tissues that carry nutrients and water and, eventually, starving the tree to death. At the end of that nine months, the cycle begins anew. The grubs mature into adult beetles, chew their way out of tree, mate, lay eggs and die.

It's about saving trees

In spite of its name, the citrus longhorned beetle attacks a wide range of hardwood species of trees, including maple, poplar, oak, willow and fruit trees, such as apple, pear and cherry. These trees are some of the more popular trees for landscaping in the Pacific Northwest. (As far as scientists know, the CLHB beetle does not attack conifer trees.) By taking decisive action now, the Washington State Department of Agriculture (WSDA) hopes to spare hundreds, if not thousands, of Puget Sound trees from an untimely end. Washington residents need only look east to the cities of Chicago and New York to understand the catastrophic damage caused by a similar pest — the Asian longhorned beetle (ALB). Since 1996, Illinois and New York State have removed nearly 7,000 beetle-infested trees

— MORE —

combined, at a total cost of $80 million in public funds. Success is slow in coming in both states. Together, both cities had to quarantine a total of 130 square miles to stop further infestations, and ultimately quash the beetle.

WSDA's comprehensive approach to fighting the CLHB beetle

Concerned state officials, field entomologists and tree-survey crews with WSDA are hard at work to stop a beetle infestation in Washington. Research findings based on the ALB beetle infestations in New York City and Chicago clearly indicate that if WSDA plans to defeat the beetle, it must use a multi-tactic approach.

Following the recommendations of a scientific advisory panel, WSDA first instituted a quarantine one-half mile around the site where three CLHB beetles were captured and five others escaped. The plant quarantine took effect in late November 2001 and is expected to remain in place for a number of years. Other tactics under the panel's guidelines included, tree removal (cutting trees to destroy CLHB larvae), tree injection with an insecticide to protect uninfested trees, and tree surveying to look for evidence of egg laying, twig and branch damage, and the beetle itself.

The purpose of the quarantine is to prevent potentially infested plant material (woody yard waste) from being carried outside the one-half mile quarantine area. Developers have been required to chip trees and stumps on site. Nurseries must request a special permit (not automatically granted) in order to move plant material out of the quarantine area; and residents can and do voluntarily comply with the restriction by bringing woody yard waste to the free, monthly "chipper days" at Foster High School, 4242 S. 144th Street.

Tree removal, the only proven way for killing CLHB larvae in trees, took place during July and early August of this year. About 1,000 trees within a one-eighth mile radius of the CLHB beetle escape site in Tukwila were cut and chipped. Tree injection, a process by which insecticide is injected directly into a tree, took place in early August along the outer edge of the tree-cutting area. About 1,500 trees were treated with Imidacloprid, a liquid insecticide that is taken up into the tree's circulatory system and kills CLHB beetles feeding on leaves, twigs and bark. One other key tactic to controlling the spread of the pest is tree inspection. An initial survey of trees from the ground and in the canopy took place last fall, and resumes again from September through November 2002. To adequately detect the presence or absence of this creature, survey crews may find it necessary to take bark and tree limb samples.

Reaching out to the community

WSDA wants to keep residents, particularly those who live in the one-half mile quarantine area, well informed about its efforts to eradicate the CLHB beetle. If you think you've spotted or captured the pest, please contact WSDA promptly (see phone and e-mail below). Tukwila residents and all the people of Washington remain a vital part of *Beetle Watch.* Look-alike beetles have often been mistaken for the offending culprit. We encourage you to visit department's CLHB Web page and study the physical features of the CLHB beetle and look-alikes. We need your continued cooperation, support and vigilant eyes to stop the CLHB beetle.

How to contact us

If you would like to learn more about the department's efforts to prevent a full-blown infestation, read the findings of the scientific advisory panel, or learn about the actions taken in Tukwila, visit the WSDA Web site at http://www/wa/gov/agr/ and click on *Citrus Longhorned Beetle*.

If you have questions about the quarantine area, tree surveying, tree vouchers and more, call (800) 443-6684 or write to us at CLBH@agr.wa.gov.